Office of Wastewater Management

Strategic Plan

2001 and Beyond

OFFICE OF WASTEWATER MANAGEMENT

STRATEGIC OVERVIEW –FY 2001and Beyond

Our Programs

The Office of Wastewater Management (OWM) leads a number of key programs and activities that contribute to the health of the nation's waters and watersheds. These include, but are not limited to:

- The National Pollutant Discharge Elimination System (NPDES) Permit Program, including the National Pretreatment Program, storm water management, and control of combined sewer overflows, sanitary sewer overflows, and concentrated animal feeding operations (CAFO).

- The Clean Water State Revolving Fund (SRF), Section 106 Grant Program to States, and the Section 104(b) program for water quality demonstrations and research.

o New infrastructure grant programs, including the construction grants program and its new components for alternative water sources, CSO/SSO projects, water resource state and Tribal assistance (STAG) grants provided by Congress, and Long Island Sound grants.

- Outreach, technical assistance, and training programs to help implementation of NPDES programs and assist small, rural, and underserved communities provide adequate wastewater treatment and disposal services. Targeted populations include Alaska Native Villages, Indian Tribes, and *colonias* along the U.S./Mexico border.

- Actions to spur the development of new and innovative technologies and techniques for water resource management, including improved management of on-site systems.

o Information, and assistance to promote efficient municipal water use and reduce wastewater flows

- Innovative and comprehensive approaches for improving environmental performance and compliance through environmental management systems (EMS), asset management, and other similar approaches.

o Critical support activities for other parts of the water program like nonpoint source management, water quality standards, and effluent guidelines

OWM, like the rest of EPA's water program, will continue to operate in the context of 1) the increasing scope and complexity of many of our programs; 2) a need to focus greater attention on the condition of the nation's aging wastewater infrastructure; 3) the need to focus on the real environmental *outcomes* of our work through strong partnerships with EPA Regions, states, and others; and 4) the need to use innovative voluntary approaches that can complement, not replace, our existing base programs.

Purpose of This Document

Both the Water Permits Division and Municipal Support Division within OWM have developed strategic plans to address the challenges facing them. This document is not intended to repeat what is already contained in those plans. Rather, its purpose is to complement them, communicate OWM's overall Vision and Mission and describe a number of strategic themes that will help to set the overall direction of the Office of Wastewater Management. This plan, along with those of our divisions should be seen as living documents, subject to change as we work to support the priorities of the new administration.

OUR VISION

Through our efforts and those of our many partners, OWM's programs help achieve the Nation's water quality goals and enable communities to manage their water resources safely, effectively, and efficiently.

OUR MISSION

To help meet the Nation's clean water goals by ensuring that appropriate regulatory standards, voluntary management approaches, information, financial resources, and technical assistance are provided to States, communities, and regulated entities.

STRATEGIC THEMES

1. Building and Enhancing Strong Partnerships–

We recognize that the ultimate success of everything we do depends on the strength of our relationships with key partners–especially states and local governments. Along with our regional counterparts, they not only implement many of our programs on a daily basis, they also help communicate with others and build support for meeting the nation's water quality goals. We will build upon and improve these partnerships, along with developing new partnerships where appropriate. In a time of limited resources and daunting challenges, partnering is not just nice to do, it is imperative to our success.

2. Future Funding Needs

In order to maintain the water quality improvements made to date and address emerging threats to water quality, adequate investment from a variety of sources is needed prevent major deterioration of the Nation's wastewater infrastructure. Continued federal investments are critical, but cannot meet the need alone. Federal funding for water and wastewater infrastructure has declined significantly in real dollars since 1980. In FY 2001, OWM will help lead a national dialogue to help reach consensus on the appropriate roles of all relevant stakeholders in providing the necessary investments and in identifying other non-fiscal measures to achieving a sustainable infrastructure system.

At the same time, states are facing major program funding issues that, if not addressed, will continue to negatively impact their ability to carry out the myriad of responsibilities delegated to them under the Clean Water Act. In certain cases, we are faced with the task of helping states to strengthen their NPDES programs to ensure sound program implementation and accountability. Additional funding will certainly help, but a more strategic approach to state water program funding is necessary that makes the best use of existing state funding sources. Accordingly, OWM and other OW program offices will work with regions and states beginning in FY 2001 to develop a series of strategic priorities for all major sources of state program funding along with options for allocating these funds most effectively.

3. Implementing the Watershed Approach

The challenges facing the nation's waters are very different today than they were 30 years ago when EPA and the Clean Water Act were created. Rivers, lakes and coastal waters are degraded by a wide variety and combination of stressors that vary from region to region and, even, watershed to watershed. The challenges ahead are more complex both technically and managerially. Increasingly we are aware of the need to adopt our regulatory, financial, and

programmatic tools to the needs of individual watersheds.

In addition, EPA and the states are scheduled to develop as many as 40,000 TMDLs (essentially pollution budgets for specific river segments or other waterbodies). As TMDLs are developed, NPDES permits will need to be revised to incorporate updated pollution limits. Developing and

implementing TMDLs is scientifically complex as well as legally and managerially challenging. Implementing 40,000 TMDLs in watersheds across the country will present numerous challenges to all our programs – NPDES, standards, monitoring, nonpoint source and our environmental finance programs such as the State Revolving Fund. Our primary challenges will be to set priorities for action across program lines and to ensure that the "standards - TMDL - permits process" works as smoothly and efficiently as possible.

4. Addressing Wet Weather Sources–

Despite the dramatic gains realized from controls on "traditional" point sources of pollution such as industrial and municipal wastewater treatment plants, the nation faces continuing challenges in controlling pollution from "wet weather" discharges from rainfall and snowmelt. Since 1990, significant steps have been taken to address polluted runoff from urban streets and overflows from sewerage systems. Storm water regulations now cover runoff from municipalities, industries, and construction sites. Under EPA's 1994 *Combined Sewer Overflow (CSO) Policy* and the Wet Weather Water Quality Act of 2000, cities with combined sewer systems must implement short-term control measures (the "nine minimum controls") and develop long-term control plans. OWM hopes to propose a sanitary sewer overflow (SSO) rule to clarify the existing prohibition on SSOs under the Clean Water Act, ensure appropriate response to SSOs that do occur, and require local programs for capacity, management, and maintenance.

The March 1999 EPA/USDA Unified National Strategy for Animal Feeding Operations should result in improved management of 1.37 billion tons of manure generated each year by these operations through flexible, common-sense runoff controls at 365,000 cattle, dairy, poultry, and hog farms that raise animals in concentrated situations. Small operations (95% of the industry) would have voluntary programs. EPA has proposed a rule that updates NPDES regulations and effluent guidelines to accomplish the goals of the Unified Strategy.

OWM will continue to move forward with these wet weather programs, working to incorporate them into the watershed approach and integrate them into all of OW's programs.

5. Promoting Better Environmental Performance through Innovation

OWM will continue to be a leader in promoting innovative approaches to improve environmental management and performance in the regulated community. Much of this work will focus on promoting the use of environmental management systems (EMS) and other innovative management tools like asset management, bench marking, etc. EMSs are a powerful tool that, when applied effectively, can help organizations of all types improve their overall environmental performance and compliance. They can also be enhanced by using information derived from other management approaches like asset management, specific best management

practices, and effective communication with the public.

OWM is the leader among agency program offices in promoting EMSs and our focus in this area will be to 1) continue our leadership to promote EMS adoption broadly with public agencies, 2) give more attention to promoting EMS adoption in key sectors like wastewater and water utilities and agriculture, 3) work with partners like the Water Environment Federation (WEF) and the Association of Metropolitan Sewerage Agencies (AMSA) to explore ways to integrate other utility management tools like asset management into the EMS framework, and 4) train and
educate our own employees in order to help them identify possible ways to use EMSs more effectively in our own programs.

6. Using Sound Science to Support for OW Programs

OWM shares the priority the Agency places on sound science. We strive to use the best scientific and technical information available to serve as the basis f or the regulations and policies within our areas of responsibility. OWM also lends its technical expertise to support the development of critical policies and regulations developed by other offices within OW and the agency.

OWM also provides technical assistance to assist states in implementing sound water pollution control programs and municipalities in achieving their public health and environmental protection objectives. We provide fact sheets, guidance, and manuals on conventional treatment methods as well as innovative and alternative municipal wastewater treatment technologies, combined sewer and sanitary sewer overflow treatment and control, watershed best management practices, storm water treatment and management, on-site systems, natural systems, biosolids, and disaster prevention/mitigation and recovery assistance. OWM also fosters and leads partnerships for the delivery of technical assistance. We support the work of national organizations like the Water Environment Federation (WEF) and Association of Metropolitan Sewerage Agencies (AMSA) in developing and disseminating a variety of products including an environmental management system (EMS) for biosolids, design manuals, and training for municipal wastewater treatment officials.

In support of effective research and development, OWM identifies technical and scientific issues that limit the effectiveness of programs, bear upon the options available, or greatly affect their costs. OWM assembles and prioritizes these findings into a research, development, and demonstration (RD&D) agenda. This agenda is used to inform RD&D priorities in EPA's Office of Research and Development, the Water Environment Research Foundation (WERF), OWM's Water Quality Cooperative Agreement (104 (b)(3) program, and other RD&D programs. Finally, OWM is developing a major initiative to increase the national effort currently devoted to water infrastructure technology, with ORD and other partners.

7. On-Site Systems –

"Decentralized wastewater systems" are onsite or cluster wastewater systems that are used to treat or dispose of relatively small volumes of wastewater, generally from dwellings and businesses
that are located relatively close together. They are commonly referred to as septic systems, private sewage systems, or individual sewage systems. About one fourth of the total population is served by on-

site systems, and about 37% of new construction employs this type of treatment. Small, rural communities represent about 10% of this total. These systems have become an issue of national concern due to demonstrated impacts on public health and water quality. Effective management of on-site systems is viewed as a viable solution for wastewater management in rural and urban fringe areas. Today the technologies available to treat and renovate wastewater on individual sites or clusters represent some of the most sophisticated technologies available. The array of options available will allow advanced levels of environmental protection, but must be managed as part of a comprehensive watershed protection effort. EPA has sponsored programs
and activities over the last five years to improve the performance and long-term reliability of these systems. These programs have been concentrated in four areas–Funding, Management, Technology, and Demonstrations. OWM will continue to promote the use of appropriate on-site technologies and the development of management systems that will help assure that these technologies are sustainable.

8. Support for Underserved Communities –

Protecting public health and improving water quality are the major goals of the Clean Water Act. Small Communities, Indian Tribes, and Colonias often experience difficulty in achieving these goals. Many communities and tribes could avoid costly construction projects through improved management skills, adequate financing, appropriate technology, and better wastewater treatment system operation and maintenance.

OWM will continue to provide water and wastewater services to tribal and community leaders through its "Small Communities Team". The team partners with organizations to manage programs of technical assistance, financial assistance, compliance assistance, and education & training to small communities and Indian tribes.

9. Promoting Water Efficiency

Water efficiency can have significant environmental, public health, and economic benefits by helping to improve water quality, maintain aquatic ecosystems, and protect drinking water sources. It is a tool that can help address not only water supply goals, but water and wastewater infrastructure needs, in stream flow, and other aquatic ecosystem issues. OWM's Water Efficiency Team (WET) will continue to provide technical assistance and information on 1) improved management practices, 2) better science, 3) effective planning and coordination, 4) market incentives, and 5) public education. We will focus on delivery mechanisms on partnerships and cooperative efforts with commercial businesses, state and local governments, professional organizations, and other institutions. A significant goal of the WET is to measure the degree of impact water efficiency can have on addressing the infrastructure funding GAP, and other water management and water/energy scarcity issues. Finally, the Water Alliances for Voluntary Efficiency (WAVE) program will continue to serve as a national model for effective partnership programs. We will target a broadened audience through WAVE to foster adoption of water efficiency measures in the lodging industry, educational institutions, and office buildings.

10. Measuring for Environmental Results

Measuring and reporting on environmental progress is a critical aspect of managing any environmental

program and is the basis for communicating progress to the public. In 1993, Congress passed the Government Performance and Results Act (GPRA) to focus and improve the federal government's efforts in this area. Over the last seven years, the OWM has made progress in this area, but we still have much work ahead. In many cases, our programs collect information and data necessary to support program implementation but our ability to describe environmental results has not yet been achieved. Our challenge is to work with states, municipalities and industry to develop a framework for expressing environmental results and an agreement on the information that will need to be gathered to support it. Linking program actions to actual changes in the environment is the ultimate goal behind the environmental results concept. As we write permits and issue SRF loans, well want to be able to measure the benefits these actions have on watersheds. This is a very difficult task - particularly in a dynamic watershed where conditions are constantly changing and others are also working to

improve water quality conditions. We will develop a methodology for tracking loadings reductions from key point sources, but will still need to ensure that adequate high quality data is available to support the methodology. After seven years of experience under GPRA, we, along with the other programs in the Office of Water, may need to re-evaluate the framework of our goals and measures and the data systems that support them. Information technology and the fundamental science that supports the Clean Water Act programs have advanced significantly in recent years and these changes afford us many new opportunities to move toward the ultimate goal of having true environmental measures.